

**AMENDMENTS TO THE SPECIFICATION:**

***Please replace paragraph [0026] with the following amended paragraph:***

Another measure to increase the conversion efficiency consists of providing at least one additional gas inlet opening, in addition to the gas inlet and gas outlet opening for the working gas in the electrode space. Usually the radiation source for quasi stationary gas flow is operated at pressures of a few Pascal on the left-hand branch of the Paschen curve. The quasi stationary gas flow guarantees that virtually everywhere in the electrode system the same pressure prevails. Owing to the presence of at least one other gas inlet or gas outlet opening, gas can be systematically admitted or pumped out at the relevant points in the electrode system. Thus, it is also possible to provide different gases in different spatial areas of the electrode arrangement. Thus, for example, in the area of the plasma channel on the axis of symmetry there can be one or more gases with high atomic numbers, for example xenon, neon, oxygen or simple room air. When these heavy gases are converted into the plasma state, they form species with electromagnetic transitions in the spectral range of  $\lambda = 1$  to 20 nm, which is of interest here. In other spatial areas, and in particular in the spatial area between the plasma channel and the x-ray gate, a light gas, such as helium or deuterium, can be provided. However, the light gases absorb the generated radiation especially poorly so that an especially high radiation intensity is available to the user.

***Please replace paragraph [0033] with the following amended paragraph:***

One possible realization for a system of capillaries is the micro channel plate 33. Micro channel plates exhibit hollow channels, through which the radiation can pass from the space (7) into the UHV area (19) and from there to the application. Even thin micro channel plates are very stable and show a high transmission for the generated EUV radiation. Thus, depending on the geometry of the electrode system, the micro channel plate can be designed as a cylinder-shaped disk. Channels with diameters in the one to two digit micrometer range penetrate the micro channel plates. Thus, it is possible, for example, to choose micro channel plates with thicknesses in the one digit millimeter range; and at least 50%, preferably at least 70%, of their surfaces comprises the openings of the micro channels.

***Please replace paragraph [0042] with the following amended paragraph:***

Studies have shown that the plasma column (11) does not project or projects only slightly into the openings (3, 8) of the main electrodes, and thus in the case of a cylindrically symmetrical design of the openings only a small solid angle is available for the radiation decoupling. Thus, the cylindrically symmetrical opening (3) in this embodiment exhibits a diameter of 10 mm, with which, given the specified thickness of the electrodes, an observer could still see the plasma at an angle of  $\alpha = 14$  degrees relative to the axis of symmetry (5). Therefore, to increase the radiation yield the opening (8) is designed conically. In the case of the conical opening (8) the plasma (11) can still be recognized by the

observer (12) at an angle of  $\theta_{\alpha} = 60$  degrees relative to the axis of symmetry (5).  
Thus, when the same energy is fed into the plasma, the result is a decoupled radiation intensity, which, compared to the case of the cylindrically symmetrical opening, is larger by approximately a factor of 20.